

perhaps Mt. Moco in Angola (see above). Omitting the Mt. Moco bird the wing- and delta-lengths can be summarized on the basis discussed under *chapini* as wing-length 126-133 av. (6) 130.2, delta-length 9.0-15.5 av. (5) 12.70 mm. A male juvenile has a delta-length of 6 mm. No weights are known.

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Notes on a further Pintail x Teal Hybrid

by James M. Harrison and Jeffery G. Harrison

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By the courtesy of Mr. C. W. Benson we were invited to examine and comment on a hybrid between a Pintail *Anas acuta* Linnaeus and European Green-winged Teal *Anas crecca* Linnaeus. The specimen is in the University Museum of Zoology, Cambridge, and its particulars are: "No. 12/Ana/3/a/11. Collection A. & E. Newton. Found in Leadenhall Market by Johnson, April 1862. Stuffed by Leadbeater". It is illustrated herein as Plate I. It was briefly recorded in *Proc. Zool. Soc. Lond.*, 1862: 84, but was not described.

Leadenhall Market is in London, and was well known in the last century as a place for the sale of wildfowl. So it may be reasonably presumed that this specimen was shot in the wild, somewhere in south-eastern England. It is the first of four such hybrids known, from plumage all males. The second was shot in the Nile Delta on 26th January, 1923, and was illustrated in *Nicoll's Birds of Egypt* (Meinertzhagen, 1930, Pl. XX), this plate being here reproduced as Plate 2. The third was shot in Kashmir on 29th December, 1937, and was described and illustrated by ourselves (Harrison & Harrison, 1969). Sage (1960) discusses and illustrates two wild-shot hybrids, from plumage also males. One of these constitutes the fourth record, and was shot in Holland, but with no exact date. The other was between a Pintail and an American Green-winged Teal *A. crecca carolinensis* Gmelin, shot on 17th December, 1952 in Imperial County, California, U.S.A. These two specimens



Plate 1. Pintail x Teal, Leadenhall Market, England.

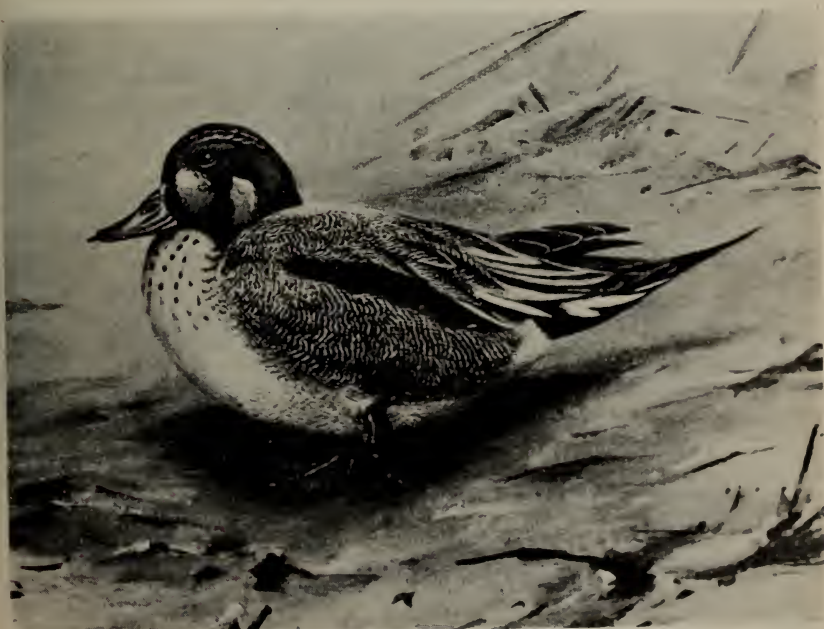


Plate 2. Pintail x Teal, Nile Delta, reproduced from *Nicoll's Birds of Egypt*.

were described as exhibiting "characters common to the males of both parent species". The white crescents on either side of the breast of the American Green-winged Teal are dominant in the hybrid.

The English specimen closely resembles the Kashmir one. A full description is therefore unnecessary, but when these two and the Egyptian one are compared, they show clinal characters, viz. in the bimaculated facial pattern and the length of the tail. In the Egyptian bird the vertical stripe forming the bimaculation is broad and dark; in the English bird, while the bimaculation is well marked, the vertical stripe is white, with only some dark colour at its base, above and below; and in the Kashmir bird the bimaculation is minimal (Harrison & Harrison, 1969). It is of interest that the Egyptian and Kashmir birds were originally thought to be hybrids between Teal and Baikal Teal *Anas formosa* Georgi. The English bird has the shortest tail (83 mm), the Kashmir bird is intermediate (93 mm), while the Nile bird has it as long as in many Pintail (see Plate 2), though unfortunately Meinertzhagen (1930) does not give any figure. The Dutch bird is also intermediate (94 mm), while the American bird has tail-length as much as 135 mm (Sage, 1960).

The breast also shows variation, though not clinal. The Egyptian bird is an almost exact copy of the vertical spotting of some Teal specimens in its discrete regularity and intensity. The Kashmir bird in this region is much more feebly marked, as already commented on, showing a "slight obscured spotting as in many Teal" (Harrison & Harrison, 1969). The English bird is somewhat remarkable in that the breast is rather strongly marked by a mixture of vertical spotting and transverse barring. That it is a bird of the year is apparent from some juvenile feathers still retained on the rump. Measurements in mm of the English specimen are: Wing (chord) 232; bill 45.4 (width at nostrils 13.5, maximum width 16); nail 8 x 3; tarsus 38; tail 83.

DISCUSSION

There are now four records of a cross Pintail × European Green-winged Teal, in which the direction of the parentage is not known. The American specimen was also wild-shot, so that in this case too the direction is unknown. The characters exhibited by these five hybrids show variation which, while not strictly intermediate, is nevertheless clinal, as can be seen from tail-length and facial pattern. In the English specimen Teal characters predominate, whereas in the Egyptian one the characters incline more to Pintail. These two morphological phenotypes may well represent the progeny of the outcome of the two directions of this interspecific cross, as has been shown in the case of Pochard *Aythya ferina* (Linnaeus) and Tufted Duck *A. fuligula* (Linnaeus) hybrids (Gillham, Harrison & Harrison, 1966).

All five known examples of Pintail × Teal crosses show bimaculation of the face, a character also revealed in other inter-specific crosses in the Anatidae, particularly those involving Mallard *Anas platyrhynchos* Linnaeus, Wigeon *A. penelope* Linnaeus and Shoveler *A. clypeata* Linnaeus. These were discussed by one of us (J.M.H., 1945, 1949, 1953, 1954, 1959), and it was suggested that the relatively frequent expression of bimaculation leads to two conclusions:

- (1) that this character is of great antiquity;
- (2) that the marked resemblance to the Baikal Teal indicates that this species is most probably an archaic form.

Further support for this view is provided by a variant drake Teal obtained

on 24th November, 1945 at Marschapel, Lincolnshire, England, in which a bimaculated facial pattern has occurred without any suggestion of hybridisation. The head of this specimen is shown alongside that of the English hybrid for comparison (Plate 3).

As has been shown, there is a cline both in tail-length and in the bimaculation of the face, the extremes in the latter being the Egyptian and English specimens. The English one, in which the vertical stripe is narrow and white rather than thick and dark, is almost exactly comparable to the Lincolnshire variant.



Plate 3. Head of variant Teal, Marschapel, Lincs., England (*left*); Leadenhall hybrid for comparison (*right*).

Much is to be learned from a study of these hybrid and aberrant ducks. Since characters closely resembling those of other species can sometimes be recognised in one and the same individual, one can reasonably postulate that the gene pool in the group must carry multiple factors. In the present series, a nuchal tuft is to be seen in the hybrid Pintail \times American Green-winged Teal, while white on the front of the neck could be derived from Pintail and/or Falcated Teal *Anas falcata* Georgi, particularly when associated with some downward curving of the long scapulars and the nuchal tuft.

SUMMARY

Five examples of hybridisation between Pintail *Anas acuta* and Teal *A. crecca* are discussed. The aberrant characters these exhibit are specified, and their possible reversionary significance is indicated. It is suggested that by a recombination of genes, characters can be presented which shed much light on the evolution of the Anatidae.

ACKNOWLEDGEMENT

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Saxicola torquata (Linnaeus) breeding in Senegal

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While looking for water birds on 2nd April 1970 in the inundation zone of the Djouj (Senegal delta), ca. 40 km north-east of St. Louis, at ca. 16° 15' N., 16° 18' W., and at sea-level, our attention was drawn to the alarm calls of a male Stonechat on dry *Phragmites* around a pool. This bird had a well marked collar, black throat, breast not chestnut but whitish, and greyer upperparts than birds of the nominate race we are familiar with in Europe. A second bird, a juvenile, was then seen, to which during the next hour the male brought food two or three times. Despite a careful search, we could not find a female or other young. Nevertheless this record leaves no doubt of reproduction in this locality, and is apparently the first proof of breeding of the Stonechat in Senegal.

In West Africa, the nearest known breeding grounds are otherwise in Sierra Leone and Guinea (*S. t. nebulorum* Bates) and Mali (*S. t. moptana* Bates). *S. t. nebulorum* inhabits altitudes of over 1200 m, and the male has a deep chestnut-red breast (Bates, *Bull. Brit. Orn. Cl.* 51, 1930: 51), but obviously this does not apply to the male which we saw. On the contrary, the male of *moptana* has "much white on the sides of the neck forming a collar nearly complete . . . most of the breast and belly white, leaving the chestnut patch on the upper breast small . . . the chestnut patch of a pale shade" (Bates, *ibid.* 53, 1932: 8). This description agrees with ours. Furthermore, *moptana* is said to live in "alluvial flats, submerged at high water and covered with coarse grass" (Bates, *loc. cit.*). This habitat seems quite similar to the one in Senegal, which is characterized by many pools, abandoned river beds, and slow water courses, bordered by *Typha*, *Phragmites*, high grass and wild rice; mostly inundated during the rains.

The specimens of *moptana* collected by Bates were all in breeding condition in January. A female was laying on 17th January (Bates, *Ibis*, 1934: 452). In Senegal, judging from our record, incubation may start around mid-February, assuming that the young bird had left the nest 10 or 15 days earlier, and that incubation and fledgling periods are the same as in Europe.

To sum up, from its coloration and habitat, it can be suggested that the Stonechat breeding in Senegal shows affinities with *S. t. moptana* of Mali, some 1200 km to the east. But the possibility cannot be excluded of an unnamed subspecies in Senegal. The problem can only be solved by the collection of specimens.